

Application No.: 09/673,739

REMARKS

Rejections for double-patenting and for obviousness under 35 U.S.C.

§103

In the Advisory Action of May 21, 2003, the Examiner maintains the rejections and finds Applicants' arguments insufficient for the following reasons, each of which will be addressed in turn.

1) In the first full paragraph of page 3, the Examiner asserts that Applicants' arguments regarding "modified base" are insufficient because "the claims are interpreted in light of the specification, limitations from the specification are not read into the claims." While the Examiner is correct in this statement, this legal premise is irrelevant to the present situation. The Examiner is correct that "limitations from the specification are not read into the claims." However, Applicants are not arguing patentability of the claimed invention based on a limitation in the specification that is not present in the claims because the claims recite the feature of a modified base. It is Applicants' position that the term "modified" must be interpreted in light of the specification, which is proper approach dictated by the Federal Circuit. *All Dental Prodx, LLC v. Advantage Dental Prods., Inc.*, 309 F.3d 774, 64 U.S.P.Q.2d 1945 (Fed. Cir. 2002)

Application No.: 09/673,739

The specification on page 3 discusses that modified bases are bases that have been made from modified precursor nucleotides. It is evident from the specification that "modified" base means for the present invention, bases that have been made from modified precursor nucleotides. As noted, the glycosylase of Chirikjian et al. does not recognize modified bases, but mismatch bases, which are still normal nucleic acids. As such, the glycosylase used by Chirikjian et al. is completely different from that of the present invention and would not function in the presently claimed method.

In addition, it would be readily evident to one of average skill in the art that mismatches are not encompassed by the present invention since a normal nucleotide is being replaced with a modified nucleotide. The only efficient way for such a replacement to happen is if the modified nucleotide forms a base pair (i.e. not mis-matches) with the normal complementary nucleotide of the nucleotide replaced by the modified nucleotide. For example, uracil will form a base pair with adenine, which is the nucleotide with which thymine is normally paired. As such, the claims and all terms contained therein are clear and defined.

2) In the third paragraph of page 2, the Examiner asserts that claim 1 appears to be open to an interpretation of using either

Application No.: 09/673,739

exogenous or endogenous DNA. The Examiner appears to be misunderstanding the claimed process.

Step iv) of claim 1 states that the extendible upstream fragments are extended. These fragments were generated in the previously recited step iii). Thus, the extendible fragments are required, by recitation of the recited steps, to be generated as part of the claimed process, i.e. endogenous to the process.

The Examiner appears to have interpreted recitation in Chirikjian et al. that the "5' end of the probe upon cleavage has remained bound to the target polynucleotide can form a template for DNA polymerase" as meaning that the probe is in the reaction cleaved and extended and hence endogenous. However, label of "exogenous" DNA to the method of Chirikjian et al. means that DNA probe in Chirikjian et al. is at some point added to the reaction, not generated as a part of the reaction. Thus, the probe in Chirikjian et al. is considered "exogenous." The Examiner asserts that the claims do not preclude the use of exogenous DNA. However, the Examiner is incorrect in this position, because the claims recite that the extendible DNA fragments are generated in step iii), i.e. endogenously. As such, the claims as written preclude the use of exogenous DNA as the extendible fragment.

Thus, for the reasons discussed above and those submitted previously, the present invention is not obvious over the cited

Application No.: 09/673,739

prior art. Withdrawal of the rejections and allowance of the claims are respectfully requested.

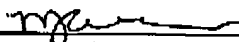
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact MaryAnne Armstrong, PhD (Reg. No. 40,069) at the telephone number of the listed below.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a five (5) month extension of time for filing a reply in connection with the present application, with the fees for the first two months having been previously submitted. The required fee is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
Gerald M. Murphy, Jr., #28,977

MaryAnne Armstrong, PhD #40,069

GMM/MAA/
1377-0156P

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000